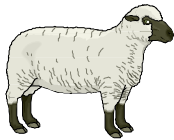


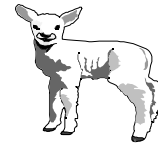
FACT SHEET

California Department of Food and Agriculture
Animal Health Branch



CLUB LAMB FUNGUS DISEASE

- August 1997 -



Introduction - First recognized in the late 1980's, club lamb fungus is a skin disease of sheep. Known by several names (woolrot, lumpy wool, and ovine ringworm), it occurs most commonly in sheep exhibited at fairs and other shows. The disease is contagious to humans and other animals. If human infection is suspected, a physician should be contacted. The physician should be informed that there has been contact with sheep.

Cause - Club lamb fungus is caused by a fungus of the genus *Trichophyton*. Similar fungi cause ringworm in humans, cattle, horses, dogs, cats, and other animals.

Development of Disease - The disease occurs when the fungus invades the skin and hair follicles. Slick shearing, repetitive washing, and stress make show animals more susceptible to infection. Nicks and cuts that occur from shearing, handling, or environmental hazards can contribute to the development of disease. Washing can contribute to infection by removing protective oils (primarily lanolin) that are part of the animal's natural defenses against fungal infection. Long or frequent travel, shows, and changes in diet may be stressful to a lamb. Stress may have profound negative effects on immunity and resistance to disease. When fungal spores are present in the animals' environment any of these factors may lead to an opportunity for infection to develop.

Identifying Infected Animals - It is much easier to identify the disease in shorn sheep. Lesions can appear anywhere, but are most commonly on the head, neck, and back. The skin is initially thick, red, and 'weeping', and later appears crusty and scaly, usually in circular lesions. Sometimes the wool appears 'clumped'. Hairs break easily, and are usually lost beginning in the center of the lesion. The 'spots' are first noted 2-4 weeks following exposure, and expand to full size in 4-8 weeks. Infections usually require 8-16 weeks for spontaneous recovery. Hair regrowth in affected areas may be black. All stages of the fungal infection are contagious until the skin surface appears normal and regrowth of hair or wool has begun.

Spread of Disease - Transmission is most likely to occur at shows, sales, and exhibitions. Susceptible lambs can be infected by contact with other lambs, humans, contaminated surroundings (pens, stalls, etc.), and equipment. *Trichophyton* spores have been known to survive several years on animals and in the environment. Spores can persist in barns, trucks, trailers, tack, grooming tools, wool, feeders and in bedding, soil and manure. Spores are resistant to destruction, particularly if lodged in cracks or hidden from direct sunlight. Shearing equipment, in particular, has been implicated in the spread of disease between sheep.

D **agnosis** - Positive identification occurs if *Trichophyton sp.* fungus is cultured from affected animals. However, a presumptive diagnosis is usually made based on clinical examination and history. Cultures often reveal a secondary bacterial contamination because the lesions are open and exposed to the environment. Contact your veterinarian for proper diagnostic procedures.

T **reatment** - No specific treatment for club lamb fungus has been identified. General antifungal medications are available and can reduce the spread of the disease. These treatments will inhibit fungal growth, but do not necessarily cure the disease. The use of antifungal medication in sheep is considered an extra-label drug use and requires a valid veterinary-client-patient relationship. Most cases of club lamb fungus recover over time if given, good nutrition, rest, and appropriate treatment.

C **ontrol and Prevention** - Facilities (pens, alleys, chutes, etc..) should be free of all sharp edges and exposed wire. Events and handling procedures should be planned to minimize animal stress.

Sanitation is critical. Avoid nicks and cuts when shearing to reduce chances of fungal entry into the skin. Use antifungal disinfectants on shearing equipment between animals to help control spread of infection. All show equipment, such as blankets, towels, and halters should be used on only one lamb. Exhibitors should avoid sharing or exchanging any equipment.

If infection occurs, thorough cleaning and disinfection of premises and equipment with an antifungal product is recommended. Noninfected sheep should be kept separate from infected animals and inspected frequently for signs of infection. Great care should be taken to avoid the transfer of spores through common equipment or personnel.

Persons handling lambs should use rubber gloves and wear long sleeves when working with infected or suspected infected animals. Thorough washing of all clothing and exposed skin should be accomplished immediately after working with affected animals.

S **urveillance at Events** - Pre-admission health examinations should occur at all shows and sales. It is recommended that these exams be conducted by licensed, knowledgeable veterinarians. All animals should be examined immediately upon arrival and before penning. Persons handling animals should use a separate pair of disposable gloves for each exhibitors' sheep. All animals with active lesions should be immediately removed from the premises.

Strict adherence to these practices greatly reduces the risk of admitting a clinically-affected animal, but will not identify an asymptomatic carrier. It is the responsibility of individual owners not to bring sheep who have been in contact with infected animals.

For additional information call:

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